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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,952	12/22/2000	Nicolas Fodor	700-193RP	1161

7590 07/12/2004

Anthony R. Barkume, Esq.,
Greenberg Traurig, LLP,
200 Park Avenue,
New York, NY 10166

EXAMINER	
EL HADY, NABIL M	
ART UNIT	**PAPER NUMBER**
2154	5

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PRG

Office Action Summary	Application No. 09/746,952	Applicant(s) FODOR, NICOLAS	
	Examiner Nabil M El-Hady	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 December 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 1-33 are pending in this application.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 5-8, 12, 15-17, and 21-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art, hereafter "AAPA" in view or Norin et al. (US 5,787,247).

4. As to claim 1, AAPA discloses the invention substantially as claimed including a clustered mail server system comprising: a plurality of mail servers, each mail server connected to a plurality of storage servers (P 2, lines 1-5); at least one domain name server connected to each of the plurality of mail servers (P 1, lines 21-30, and P2, lines 1-5) to an external computer network, and to an internal computer network (P1, lines 13-20); wherein the domain name server, upon receipt of a request from a sender mail server, selects one of said plurality of mail servers to which to route a message and routes the message to the selected mail server and wherein the selected mail server stores the message on a storage server accessible to said selected mail server (P2, lines 18-30).

5. AAPA does not disclose a mirroring table that lists, for each of the plurality of mail servers, one or more other mail servers in the plurality of mail servers associated with each said mail server, and the selected mail server stores the message on each of the at least one other

storage servers associated with those mail servers listed in the mirroring table for said selected mail server. Norin, on the other hand, discloses the concept of using a mirroring table (replica list) that lists, for each of the plurality of mail servers (replica nodes), one or more other mail servers associated with it, and the selected mail server stores the message on each of the at least one other storage servers associated with those mail servers listed in the mirroring table (col. 3, line 54-59; and col. 4, lines 20-21). It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of AAPA and Norin because Norin's mirroring table concept would enhance the load balancing of AAPA's mail servers resulting in faster mail services and preventing inadvertent mail loss (see Norin, col. 1, lines 59-67; col. 2, lines 1-61).

6. As to claim 12, the claim is rejected for the same reasons as claim 1 above. In addition, AAPA and Norin disclose a system for load-balancing a plurality of interconnected mail servers and storage servers connected to a computer network via a domain name server, said system comprising: one or more mail exchange records wherein each mail exchange is associated with one of a plurality of mail servers (AAPA, P1, line 30 to P2, line 30), and includes a priority index for the associated mail server (AAPA, P2, lines 6-30); means for a domain name server to change the value of the priority index for an associated server (AAPA, P2, lines 7-8), said priority index indicative of the priority of said associated server for receiving email from the domain name server (AAPA, P2, lines 7-11); wherein the domain name server, upon receipt of a request from sender mail server, selects a first mail server with a priority index value indicative of a highest priority to process a message associated with the request (AAPA, P2, lines 18-30). Norin discloses a mirroring table that lists, for each of the plurality of mail servers, one or more other mail servers in the plurality of mail servers associated with each said mail server (col. 4, lines 20-21); a message tracking agent (col. 4, lines 25-27); and a catalog table (col. 4, lines 31-

42); and wherein the message tracking agent copies and stores said message to those storage servers associated with those mail servers listed in the mirroring table of the first mail server and records a record of the message and the storage servers on which said message is stored in the catalog table (col. 4, lines 20-21, 31-42).

7. As to claim 21, the claim is rejected for the same reasons as claim s1 and 12 above. In addition, AAPA and Norin disclose a method for processing messages comprising the steps of: receiving, at a domain name server, a request from a sender server (AAPA, P 1, lines 21-30, and P2, lines 1-5); selecting, by the domain name server, one of a plurality of mail servers to which to rout an incoming message associated with said request; routing the incoming message to the selected mail server and storing the message on a storage server associated with said selected mail server (P2, lines 18-30); copying said message to one or more other storage servers associated with mail servers from among the plurality of mail servers that are associated with said selected mail server and recording in a catalog table a record of the message and each of the storage servers wherein the message is stored (Norin, col. 4, lines 20-21, 31-42).

8. As to claim 5, the claim is rejected for the same reasons as claim 12 above. In addition, Norin discloses a catalog table (col. 4, lines 31-42); and a message tracking agent (col. 4, lines 25-27); wherein said message tracking agent creates a transaction record in the catalog table that records the storage servers on which a message is stored (col. 4, lines 20-21, 31-42).

9. As to claims 6, 15, and 28, the claims are rejected for the same reasons as claims 5 and 12, and 21 above. In addition, AAPA discloses a plurality of access servers adapted to enable a

client to retrieve messages stored on a first storage server connected to a first mail server and on each of the at least one other storage servers associated with mail servers listed in the mirroring table of said first mail server, wherein the domain name server, upon receipt of a client's message retrieval request, selects one of said plurality of access servers to service the message retrieval request (P1, line 31 to P2, line 5; P3, lines 5-10). It would have been obvious to one skilled in the art at the time of the invention to employ the same concept of message tracking agent that are being used in the storing of mail messages at mail host servers and corresponding catalogue table to read the catalog table to locate and compile the client's messages and returns said messages to the selected access server (Norin, col. 4, lines 20-21, 31-42).

10. As to claims 7, 8, 16, 17, 26, 27, 29, and 30, AAPA and Norin do not disclose a database of client addresses; means for detecting a virus attached to an incoming message; a database of sender addresses, means for comparing a sender address of an incoming message against said sender address database, means for blocking an incoming message whose sender address is in said sender address database; means to determine if an client wishes to be notified of an incoming message, means to notify any such client of the incoming message, and notifying the client if no messages were found. However, it is well known in the art, and one skilled in the art at the time of the invention would recognize the employment of a database of client addresses, so that the domain name server can verify the address of an incoming message received from the network, and can verify the address of a client requesting messages, means for comparing a sender address of an incoming message against said sender address database, means for blocking an incoming message whose sender address is in said sender address database; means to determine if an client wishes to be notified of an

incoming message, means to notify any such client of the incoming message, and notifying the client if no messages were found, in order to enhance the functionality of the mail system.

11. As to claims 22-25, the claims are rejected for the same reasons as claims 1, and12-14 above.

12. Claims 2-4, 11, 13,14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art, hereafter "AAPA" in view or Norin et al. (US 5,787,247) and further in view of Brendel et al. (US 5,774,660), hereafter "Brendel".

13. Brendel et al. is cited by the applicant in IDS Paper No. 4 filed 3/26/2001.

14. As to claims 2 and 14, AAPA and Norin do not explicitly disclose the domain name server is adapted to select each of the plurality of mail servers in a roundtable manner as subsequent messages are received. However, it is well known in the art, and one skilled in the art at the time of the invention would recognize that roundtable is one simple approach which is used for load balancing in domain name servers (see, for example, Brendel, col. 3, lines 4-6).

15. As to claims 3 and 13, AAPA and Norin do not disclose the domain name server is adapted to querying each of said plurality of mail servers as to load and based on the response to said query select one of said mail servers to process a mail request. However, it is well known in the art, and one skilled in the art at the time of the invention would recognize that other optimal load balancing policies may be used by quarrying servers and balance the load accordingly (see, for example, Brendel, col. 3, lines 31-38; and col. 6, lines 20-26,55-57).

Obviously, AAPA's mail exchange record may be used to alter a priority index corresponding to or a server in order to enforce an automatic load balancing.

16. As to claim 4, the claim is rejected for the same reasons as claim 3 above. In addition, AAPA discloses a table of mail exchange records, such that each of the plurality of mail servers is associated with at least one mail exchange record, each said mail exchange record including a priority index for the associated mail server for determining the priority of selection of the associated mail server by the domain name server (P1, line 30 to P2, line 30);, wherein the domain name server is adapted to altering the priority index in the mail exchange record associated with each mail server.

17. As to claims 11 and 20, Bredel discloses each storage server associated with each of the plurality of mail servers is accessible by a physically independent path (Fig. 4; and Fig. 19).

18. Claims 9, 10, 18, 19, and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art, hereafter "AAPA" in view or Norin et al. (US 5,787,247) and further in view of Funk et al. (US 5,937,162), hereafter "Funk".

19. Funk et al. is cited by the applicant in IDS Paper No. 4 filed 3/26/2001.

20. As to claims 9, 10, 18, 19, and 31-33, AAPA and Norin do not disclose means for storing a facsimile message, or a voicemail message. Funk, on the other hand, discloses means for storing a facsimile message, or a voicemail message beside email messages (110, 118, Fig. 1; and col. 6, lines 6-23). It would have been obvious to one skilled in the art at the time of the

invention to combine the teachings of AAPA, Norin, and Funk because Funk's means for storing a facsimile message, or a voicemail message on a selected storage server associated with a mail server and on each of the at least one other storage servers associated with the mail servers listed in the mirroring table in AAPA-Norin's system would enhance delivering mail messages for each subscriber based on subscriber record of profile (see, Funk, col. 4, lines 21-24).

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. .

McBride et al. (US 2001/0034728) ; Adams (US 5,963,944); Jindal et al. (US 6,327,622); Caswell et al. (US 6,336,138); Gifford (US 6,052,718); Forguson et al. (US 6,061,740); Rabinovich et al. (US 6,167,427).

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nabil M El-Hady whose telephone number is (703) 308-7990. The examiner can normally be reached on 9:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 5, 2004

Nabil El-Hady, Ph.D, M.B.A.
Primary Patent Examiner
Art Unit 2154